PATENT

Amendments to the Claims

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims

1. (Currently amended) A computer-implemented method for the estimation of mean production for assemble-to-order manufacturing operations, the method comprising the steps of:

> receiving an identification of a product one or more products to be analyzed;
>
> receiving data describing the components required to produce the products; specified product;
>
> determining a feasible region, the feasible region comprising conditions where a supply of the components meets a demand for the products;
>
> formulating a sum of multidimensional integrals corresponding to the estimation of mean production for the products; specified product; and
>
> evaluating the sum of multidimensional integrals.

2. (Canceled)

3. (Currently amended) A method as recited in claim 1 that further comprises the step of steps of:

> determining a feasible region Ω and an infeasible region $\overline{\Omega}$, the feasible including all points where the demand for the specified products can be met with the current levels of the components required to produce the specified product, the infeasible region including all points where the demand for the specified products cannot be met with the current levels of the components required to produce the specified product. product; and
>
> presenting the result of the evaluating step to a user.

4. (Original) A method as recited in claim 3 that further comprises the step of formulating respective production policies $q(x)$ for the feasible region and the infeasible region.

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5.   (Original) A method as recited in claim 4 wherein the production policy for the feasible region is $q(x) = x$ and the production policy for the infeasible region is the uniform production policy.

6.   (Original) A method as recited in claim 4 wherein the production policy for the feasible region is $q(x) = x$ and the production policy for the infeasible region is the local u-production policy.

7.   (Currently amended) A data storage medium having machine-readable code stored thereon, the machine-readable code comprising instructions executable by an array of logic elements, the instructions defining a method comprising the steps of:

> receiving an identification of a-product one or more products to be analyzed;
>
> receiving data describing the components required to produce the products; specified product;
>
> determining a feasible region, the feasible region comprising conditions where a supply of the components meets a demand for the products;
>
> formulating a sum of multidimensional integrals corresponding to the estimation of mean production for the products; specified product; and
>
> evaluating the sum of multidimensional integrals.

8.   (Canceled)

9.   (Currently amended) A data storage medium as recited in claim 7 wherein the method further comprises the step-of steps of:

> determining a feasible region Ω and an infeasible region $\overline{\Omega}$, the feasible including all points where the demand for the specified products can be met with the current levels of the components required to produce the specified product, the infeasible region including all points where the demand for the specified products cannot be met with the current levels of the components required to produce the specified product. product; and

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presenting the result of the evaluating step to a user.

10. (Original) A data storage medium as recited in claim 9 wherein the method further comprises the step of formulating respective production policies $q(x)$ for the feasible region and the infeasible region.

11. (Original) A data storage medium as recited in claim 10 wherein the production policy for the feasible region is $q(x) = x$ and the production policy for the infeasible region is the uniform production policy.

12. (Original) A data storage medium as recited in claim 10 wherein the production policy for the feasible region is $q(x) = x$ and the production policy for the infeasible region is the local u-production policy.

13. (Currently amended) A system for the estimation of mean production for assemble-to-order manufacturing operations, the method comprising the steps of:

means for receiving an identification of ~~a product~~ one or more products to be analyzed;

means for receiving data describing the components required to produce the products; ~~specified product;~~

means for determining a feasible region, the feasible region comprising conditions where a supply of the components meets a demand for the products;

means for formulating a sum of multidimensional integrals corresponding to the estimation of mean production for the products; ~~specified product; and~~

means for evaluating the sum of multidimensional integrals.

14. (Canceled)

15. (Currently amended) A system as recited in claim 13 that further comprises: ~~comprises~~

means for determining a feasible region Ω and an infeasible region $\overline{\Omega}$, the feasible including all points where the demand for the specified products can be met with

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the current levels of the components required to produce the specified product, the

infeasible region including all points where the demand for the specified products

cannot be met with the current levels of the components required to produce the

specified ~~product.~~ product; and

means for presenting the result of the evaluating step to a user.

16.   (Original) A system as recited in claim 15 that further comprises means for formulating respective production policies $q(x)$ for the feasible region and the infeasible region.

17.   (Original) A system as recited in claim 15 wherein the production policy for the feasible region is $q(x) = x$ and the production policy for the infeasible region is the uniform production policy.

18.   (Original) A system as recited in claim 15 wherein the production policy for the feasible region is $q(x) = x$ and the production policy for the infeasible region is the local u-production policy.

19.   (New) A method as recited in claim 1, further comprising the steps of:
        determining an infeasible region, the infeasible region comprising conditions wherein
               a supply of the components fails to meet a demand for the products.

20.   (New) A method as recited in claim 19, wherein the multidimensional integrals comprise a multidimensional integral over the feasible region and a multidimensional integral over the infeasible region.

21.   (New) A data storage medium as recited in claim 7 wherein the method further comprises the step of:
        determining an infeasible region, the infeasible region comprising conditions where
               a supply of the components fails to meet a demand for the products.

22.   (New) A data storage medium as recited in claim 21 wherein the multidimensional integrals comprise a multidimensional integral over the feasible region and a multidimensional integral over the infeasible region.

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23. (New) A system as recited in claim 13 that further comprises:

means for determining an infeasible region, the infeasible region comprising conditions wherein a supply of the components fails to meet a demand for the products.

24. (New) A system as recited in claim 23, wherein the multidimensional integrals comprise a multidimensional integral over the feasible region and a multidimensional integral over the infeasible region.

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